

**DEPARTMENT OF ENVIRONMENTAL QUALITY  
INDUSTRIAL & ENERGY MINERALS BUREAU  
OPENCUT MINING PROGRAM**

**FINAL SUPPLEMENTAL ENVIRONMENTAL ASSESSMENT**

An environmental assessment (EA) is required under the Montana Environmental Policy Act (MEPA). An EA functions to identify, disclose and analyze the impacts of an action, in this case operating a gravel pit over which the state must make a decision, so that an informed decision can be made. MEPA sets no environmental standards even though it requires analysis of both the natural and human environment. This document may disclose many impacts that have no legislatively required standards or over which there is no regulatory authority. The state legislature has provided no authority in MEPA to allow the Department of Environmental Quality (DEQ), or any other state agency, to require conditions or impose mitigations on a proposed permitting action that are not included in the permitting authority and operating standards in the governing state law, such as the Opencut Mining Act, the Clean Air Act of Montana, or any other applicable state environmental regulatory law. Beyond that, a company may agree to voluntarily modify its proposed activities or accept permit conditions.

The state law that regulates gravel-mining operations in Montana is the Opencut Mining Act. This law and its approved rules place operational guidance and limitations on a gravel-mining project during its life, and provides for the reclamation of permitted land area. This law requires that a reclamation bond (cash deposit or other financial instrument) be submitted to the state to cover the complete costs of reclaiming the site to its approved, post-mining land use.

The permit decision cannot be based upon the popularity of the project, but upon whether or not the proponent has met the requirements of the Opencut Mining Act, pursuant rules, and other laws pertaining to his proposed actions.

This supplemental EA is written in response to an amendment application submitted in April 2005 to DEQ to add acreage to an existing permit. A Draft Supplemental EA was published on November 17, 2005.

**Proponent:** Fisher Industries  
**Site:** Mobley, Amendment #2  
**Legal :** Amendment - NE $\frac{1}{4}$  and N $\frac{1}{2}$ SE $\frac{1}{4}$  of Sec 31, T1S, R25E  
Existing permit - SW $\frac{1}{4}$  of Sec 31, T1S, R25E  
**County:** Yellowstone  
**Existing Approved Permit & Amendment(s):** FSC-053, Amendment #1  
**Final Reclamation Use and Date:** Residential sites and ponds, completed by the year 2031

**History of the Permit:** Fisher Sand and Gravel Company applied for an opencut permit in the summer of 2001. A 15-page EA was written and made available to the public. That document analyzed possible impacts of the plan of operation covering the original 143-acre site. An opencut permit was granted on October 24, 2001.

An amendment submitted in October 2003, requesting a 16-acre increase in disturbance area within the original permit area, was approved in February 2004.

Fisher Sand and Gravel purchased a 177-acre property this spring. In April 2005 the company applied to add the acreage to its permitted area and mine it under the existing plan of operation. Representatives of

the company visited fourteen nearby residents to explain their plans, distribute Resident Notification forms, and gather the neighbors' concerns. Four forms were returned.

**Type and Purpose of Action:** Proponent purchased property adjacent to its existing permitted mine site, and has applied for an amendment to add the 177.6-acre property to the permitted area. The existing plan of operation, reclaimed use of subdivision with ponds, and final reclamation date of the fall of 2031 would remain the same.

The total acreage under permit would be 320.2 acres with 96.4 acres of disturbance. Proponent is legally bound through the opencut mining permit with the state to reclaim the site. With approval of this amendment, the reclamation bond would rise to \$512,331.

The original 15-page EA written in 2001 is applicable to this amendment.

**Plan of Operation Highlights:** Major points in the plan of operation include the following.

- a. This is a retail/wholesale commercial aggregate operation that includes operating a crusher, cement batch plant, an asphalt plant, and producing landscaping materials.
- b. Mining to depth is accomplished by dewatering active excavation areas.
- c. Water is discharged via the V-Ditch to the wetland just east of the site, and back into excavated areas within the permitted area.
- d. Farming continues on undisturbed lands. As mining progresses, all soil would be salvaged. The salvaged soil is stockpiled in berms around the perimeter to help break up the view and noise from the operation. Landscaping with trees and shrubs is also required and is proceeding with active mining.
- e. The crusher, cement plant, and other semi-permanent equipment, if and when they were moved, would be located as far from local residences as reasonably possible, but no closer than 1,000 feet. Movement of these facilities from the current location could involve another amendment to the permit.
- f. Site access is off Laurel Airport Road.
- g. Some concurrent reclamation would be accomplished.
- h. A map of the area is attached to this document.

**Site Description:** The amendment site is flat, irrigated farmland bounded by Danford Road on the north and 64<sup>th</sup> Street West on the east side. Suburban residential properties lie to the north and east. The West Billings Neighborhood Plan identifies this vicinity as an area where both gravel operations and residential subdivisions would continue to develop and expand.

**Issues, Comments, and Responses that have been received on the Draft Supplemental EA:** A public comment period on this supplemental EA was opened on November 17, 2005, and was officially closed on December 5, 2005. Any comments received since the closing date have also been included in these responses. Six comment letters or phone calls were received in response to that Draft Supplemental EA.

The main issues raised concerning the existing operation are addressed below in this Final Supplemental EA. They include impact on local residential wells, the Reiter wetland on MDT property, dewatering, and a few miscellaneous concerns. Following are DEQ responses to these issues.

**Groundwater Levels and Impact to Wells:** A concern was raised that if all the gravel was mined, the water level would be lowered and local wells adversely impacted. Who would pay for replacement of the wells?

**Response:** Monitoring at 5 wells has indicated that the water levels have not shown any abnormal fluctuations or reductions over the last 4 years of mining. Fisher has removed gravel along the east boundary of the existing permit resulting in 3 pits or pond areas. As part of concurrent reclamation they have already backfilled one of the ponds. There is not a big void that impedes all groundwater flow to the east. The final reclamation plan for the area calls for a subdivision that would include revegetating about 100 acres of land and leaving about 80 acres of ponds. The ponds would help maintain water levels in the area. Monitoring of the 2 new wells along 64th Street has begun. Baseline is being developed for comparison to show possible impacts if this amendment were approved and mining were to proceed to the east.

Monitoring is conducted by Fisher Sand and Gravel under the direction of DEQ. DEQ periodically takes water level readings for comparison.

State law requires that if a mine were responsible for adversely impacting a well, the company would be required to mitigate the impact under the direction of DEQ. Based upon specific circumstances this could be accomplished in a number of ways such as lowering the pump in the well, drilling the well deeper, drilling a new well, etc. See the discussion of water levels below and in the original 2001 EA.

**The Reiter Wetland:** What caused the problems at the wetland and the road culvert under Laurel Airport Road? Are the adverse impacts in violation of wetland regulations?

**Response:** The Reiter Wetland developed in a gravel pit that was excavated in the late 1970's and early 1980's. At the request of the Montana Department of Transportation (MDT) to help maintain the wetland, Fisher discharged water since operations began in 2001. Water levels rose and fell seasonally. In July 2004 the county cleaned out the culvert because it was plugged. Maintenance was conducted on some fiber optics lines in November of 2004. During the summer of 2005 the water level in the wetland rose and the vegetation died. In late August and the beginning of September 2005 the county attempted to clean out and ultimately replace the culvert under Laurel Airport Road. During that maintenance activity the wetland was drained precipitously and caused substantial damage to the roadway, the BBWA Canal, and the railroad.

At this time there is no conclusive information as to why the vegetation within and surrounding the pond died. There is no visual evidence of any adverse effects to land or aquatic vegetation in the V-ditch or on Fisher property. In addition, there are differing views as to what and why the culvert plugged. Also in dispute is whether or not there was a violation of federal wetland regulations. These questions may be resolved after all the facts have been determined.

The county has contracted with an engineering firm to investigate the circumstances leading up to this accident, and a report will be available, probably in January 2006.

MDT has surveyed the site and is designing a control structure to raise and lower the water level in the wetland. It is also installing a staff gauge so that the water level can be easily read.

Fisher has not discharged into the wetland since being contacted by MDT in September.

**Mine Dewatering and Discharge:** Yellowstone County does not want mine discharge water to be conducted through its rights-of-way and culverts without its prior knowledge and approval. The Billings Bench Water Association (BBWA) does not want mine discharge water to reach its canal.

**Response:** As stated in the EA, Fisher has multiple places to discharge water on its own property. Off-site discharge was done at MDT's request to enhance the environmental value of the wetland. Until all involved parties have agreed upon a course of action, Fisher will not discharge to the wetland.

Fisher has discharged into an irrigation ditch which supplies water to its own property. This is not a BBWA ditch. If local residents wish to obtain water, the county and other involved agencies would need

to be contacted and the proper approvals garnered.

**Public Involvement:** One person stated that he had not been contacted either in 2001 or in 2005 and wished his voice to be heard. He requested a public hearing.

**Response:** Records show that a 2001 EA was mailed to this person and that a public notice was posted in the Billings Gazette explaining how to obtain information concerning the project. In the spring of 2005, Fisher representatives personally spoke with 14 neighbors and left resident notification forms for them to fill out. DEQ received a completed and signed form on June 13, 2005 from this individual and several other neighbors. Those comments were included in the draft EA, a copy of which was mailed to all interested parties on November 17, 2005. A public notice was also published in the Gazette in November 2005. After receiving his request and comments on November 22, another copy of the original 2001 EA was mailed to this person.

Another comment was removed from context leaving the impression that DEQ "has no power to require conditions or impose mitigations." The quoted portion of the text refers only to the Montana Environmental Policy Act (MEPA). The text in the draft EA continues to explain that the Opencut Mining Reclamation Act does direct DEQ to impose such mitigation if warranted.

Only one commenter requested a public hearing. Three members of the public phoned in comments, and no commenter, verbal or written, requested an on-site meeting.

**Property Values:** A mine around our house would reduce our property values.

**Response:** This question has been raised many times on applications in several areas of the state. Sale or market value of adjacent property may be negatively affected by the presence of a gravel pit, but DEQ has no specific information on this issue at this site. In any case, under the Opencut Mining Act, DEQ has no authority or jurisdiction over property value issues.

The Legislature has specifically limited DEQ's authority to issues relating to taxable value. Under Montana law, an administrative agency, such as DEQ, has only those powers granted to it by the Legislature through enactment of statutes. The Legislature has given DEQ two means of mitigating the effects of gravel operations on adjacent property. First, DEQ has authority to protect air quality; to minimize noise and visual impacts to the degree practicable through use of berms, vegetation screens, and limits on hours of operation; and to otherwise prevent significant physical harm to adjacent land. Second, in order to protect and perpetuate the taxable value of property, land on which operations are completed must be graded and revegetated. The State contracted for a study to determine "whether the existence of a gravel pit and gravel operation impacts the value of surrounding real property." The study is entitled: "Gravel Pits: The Effect on Neighborhood Property Values," by Phillip J. Rygg, MAI, Appraisal Research Group, Kalispell, Montana, February 1998. Rygg's study involved some residential property near two gravel operations in the Flathead Valley. He concluded that these measures were effective in preventing decrease in taxable value of those lands surrounding the gravel pits. In his review of the study, Jim Fairbanks, Region 3 Manager of the Montana Department of Revenue, Property Assessment Division said:

and "In the course of responding to valuation challenges of ad valorem tax appraisals, your reviewer has encountered similar arguments from Missoula County taxpayers regarding the presumed negative influence of gravel pits, BPA power lines, neighborhood character change, and traffic and other nuisances. In virtually ALL cases, negative value impacts were not measurable. Potential purchasers accept newly created minor nuisances that long-time residents consider value diminishing."

A crushing and asphalt batching facility has the possibility of reducing the attractiveness of home sites to potential homebuyers seeking a quiet, rural/residential type of living environment. This operation

could also affect the marketability of existing homes, and therefore cause a reduction in the number of interested buyers and may reduce the number of offers on properties for sale. This reduction in property turnover could lead to a loss in realtors' fees, but should not have any long-term effect on taxable value of property. If homeowners believe their property values are decreased because of a gravel operation, they may appeal to the County and the State for tax adjustment. There is a performance bond in place that would allow DEQ to reclaim the land under permit if the operator is unable to do so, which would protect taxable value. DEQ is required by law to see that the work is done, as specified in the Plan of Operation.

### **These Issues and Concerns and Responses were included in the Draft Supplemental EA.**

***Would there be a public meeting?***

***What would the hours of operation be?***

***What is the life of mine?***

***Where are the access roads?***

***Would dewatering or water diversion affect local wells?***

### **Responses to Concerns and Impact Analysis:**

***Would there be a public meeting?*** DEQ is not required to hold a public meeting by the Opencut Mining Act. Under MEPA it is a discretionary decision to hold a public hearing on an EA. DEQ is not currently planning to sponsor such a public hearing unless there is a substantial number of requests by the public to do so. However, DEQ can hold informal public meetings with citizens at their request.

***What is the life of mine?*** The operator did not propose a change in the mine life. The mine is permitted until 2031.

***What would hours of operation be?*** Normal hours of operations are 7 a.m. to 6 p.m. Monday through Friday, and 7 a.m. to noon on Saturday. Some contracts, such as paving major streets or working at the airport could require operating a 24-hour schedule. This issue was mentioned in Section 8-Aesthetics, on page 11 of the original 2001 EA.

***What are the access roads?*** The site is accessed off Laurel Airport Road. The permanent scales, office and other facilities are located at that point. The county is responsible for regulating traffic on roads in that area. If the operator chose to pursue any other access point (it has not indicated that it would), it would have to apply to the county for an access permit. The county commissioners recently have restricted truck traffic on 64<sup>th</sup> Street West.

***Would dewatering or water diversion affect local wells?*** Questions about water levels and impacts to local wells and wetlands were raised when the initial plan was analyzed. The original 2001 EA had a 4-page discussion of water resources and possible impacts starting on page 3 of that document. Five monitoring wells were drilled in 2001 to measure the actual water level fluctuations. A graph of the 4-year record of those levels is attached at the end of this document. Two more monitoring wells have been drilled along 64<sup>th</sup> Street.

### **Expanded Discussion of Water Resources**

***2001 to 2005 Monitoring Results:*** Except in its immediate vicinity, dewatering and discharging have had minimal effect on the water table. For the most part groundwater levels have not dipped below

18 feet below ground surface or risen above 4 feet below ground surface. The 2005 summer levels were somewhat anomalous due to Billings receiving above normal precipitation.

In 2001 four dedicated monitoring wells were situated at approximately the midpoints of the north, south, east, and west boundaries of the original 140-acre permit area. The Montana Department of Transportation (MDT) maintenance section house has two wells 250 and 450 feet east of the Fisher-Mobley permit boundary and expressed concern that localized pit dewatering might adversely impact their wells. Therefore, a fifth monitoring well was placed about 100 feet outside the permit boundary, between the boundary and closest MDT well.

The area surrounding the permit to the west, north, and northeast and about half of the permit area are still actively farmed. Monitoring well FM-2, along 72<sup>nd</sup> Street, is the most up-gradient well, reflecting water levels as they enter the property. Flood irrigation by farmers in the vicinity has the greatest impact on water levels. The graphs illustrate the seasonal fluctuation of being high from late May and early June to late September, and then dropping throughout the fall, winter and spring until water becomes available again in May. The irrigation amount, therefore water level, is affected by availability, crops, and natural precipitation, among other things.

The graphs also show that water levels do not necessarily follow a smooth curve. They change abruptly, sometimes rising 8 feet in 2 weeks when the ditches are turned on. They show individual blips that may be due to crop selection. Small grains require irrigation be removed in mid-summer so the crop can mature and be harvested, whereas sugar beets require heavy irrigation well into September.

Some changes are related to mining activity. When the eastern portion of the permit area was being actively mined and dewatered wells FM-4 and FM-5 do not show the summertime rise in 2003. As mining advanced farther north in 2004, water levels in those wells rose to normal summertime levels.

However, in 2005 water levels did not rise until July, and then not very much. This was not mining related. It was due to ample rainfall during the spring and early summer, negating the need for early irrigation.

FM-3 is located at the mine's main entrance on Laurel Airport Road. This was the first area of mining development and little irrigated land lay near this well. Since the wells stabilized in the fall of 2001, annual fluctuation of the water level in this well has been about 4 feet, from 14 to 18 feet below ground level. This well shows little summertime rise in the water table.

***Monitoring for New Amendment Area:*** Two new monitoring wells have been installed along 64<sup>th</sup> Street West. These wells are on the down-gradient side of the amendment area. They are being monitored so there is time to establish a water level baseline in these wells before mining commences in this new area. The new baseline would be compared to data from the existing wells.

These new wells would show if dewatering or discharging in the amendment area were impacting the water level in the mine site and thus potentially at the houses along 64<sup>th</sup> Street. Fisher does not own or control the irrigated farmland to the west of the amendment area. An up-gradient well might be required along the amendment's western or northern boundary if water levels in the new wells (6 and 7) are out of synchronization with the older monitoring wells or fluctuate in an unpredicted manner.

***Water Discharge:***

Fisher Sand and Gravel pumps groundwater from its pits to several discharge points. These include the irrigation supply ditch that serves Fisher land, excavated pits inside the permit boundary, and the V-ditch to the Reiter wetland. The water is clean groundwater, not process water, so no discharge permit is required.

Prior to gravel mining, the V-ditch collected irrigation wastewater during the summer and delivered it to the wetland on MDT-owned land at 64<sup>th</sup> and Laurel Airport Road. That did not yield a year-round supply of water, so MDT requested that Fisher put discharge water into the V-Ditch. If MDT believes that too much water is in the wetland, it can request Fisher to adjust its discharge pattern.

NOTE: A culvert under Laurel Airport Road delivered water from this wetland under the road to the south. When the county began replacing the culvert, water in the wetland forced its way through the culvert channel, and drained the wetland. A new culvert has been installed. If this had been a normal county maintenance item, MDT or Fisher could have been contacted to change its discharge pattern, decreasing the amount of water in the wetland.

At this time the wetland vegetation has died. MDT is investigating possible reasons for this. The wetland had been receiving discharge water for 4 years and had prospered until late this past summer. Fluctuating water levels throughout the year had provided different habitats, attracting a greater variety of wildlife, particularly birds. Because discharging to this wetland is not Fisher's only option, MDT could request that all discharge water be diverted for management purposes such as burning off excess vegetation. MDT has requested that Fisher stop placing water in the V-ditch at this time.

***Discharge from the Amendment #2 Area:***

Several discharge paths could be used. There are wastewater ditches in the middle of the amendment area, along Danford Road and along 64<sup>th</sup> Street. Several culverts cross under 64<sup>th</sup> Street, which could deliver surface water to the east side residents. Fisher could also use the existing system of pumping from pit to pit or discharging into the V-ditch. At this time Fisher is managing water within the permit area and not discharging water.

**Potential Impacts and Mitigation:** The current Mining and Reclamation Plan applies to the new mining area. There are no exceptional mining and reclamation considerations.

**Water** - Nearby wells have not suffered adverse impacts due to either dewatering or discharging activities.

The wastewater ditches peter out east of 64<sup>th</sup> Street and do not connect with any surface water feature. Any water they presently carry infiltrates into the ground somewhere between 64<sup>th</sup> and the Billings Bench Water Association canal.

Several residents expressed interest in getting a head of discharge water into those ditches so that it might carry into their properties. Groundwater temperature in winter is about 45 degrees F. Water discharged to these ditches or in over-ground flow would cool quickly and probably freeze. Therefore, this method would be used sparingly in winter. Also, before this could occur, numerous parties such as the county public works department and the ditch company would have to be consulted and their approval gained.

As mining would progress to the north in this amendment area, Fisher's existing plan of operating in several pits at once would allow them to keep the flexibility to never discharge off-site. Just as in the existing area, Fisher could discharge from one existing pit to another. This may not be the most economical practice since water flows through the gravels very quickly and re-pumping some of the same water occurs.

Fisher has adjusted its operations quickly in response to monitoring data and MDT's request to stop discharging to the wetland.

**Landscaping** – Trees planted along Laurel Airport Road have not survived due to changing the soil berm and insufficient irrigation. The landscaping plan in that area has been modified but trees and shrubs will be replanted.

Chokecherries, aspen and cottonwoods have been planted and irrigated along 72<sup>nd</sup> Street West. They are thriving. Because the land is being actively farmed, no soil has been salvaged yet and no soil berm constructed.

Most of the amendment #2 area would remain in active farming for several years. Soil salvaged from the first area adjacent to active mining would be used to build a berm along Danford and/or 64<sup>th</sup>. Trees and shrubs would be planted and irrigated.

**Mining Operations** – Fisher would not place its crusher or other large equipment nearer than 1,000 feet from residences. A major repositioning of those kinds of equipment could require another amendment.

**Reclamation** - The ratio of land to pond area at final reclamation would remain about the same, i.e., sixty percent land to forty percent pond.

Use of the amendment area would not cause any significant impacts on the physical environment or human population.

**Additional Public Involvement, Agencies, Groups or Individuals Contacted for this amendment:**

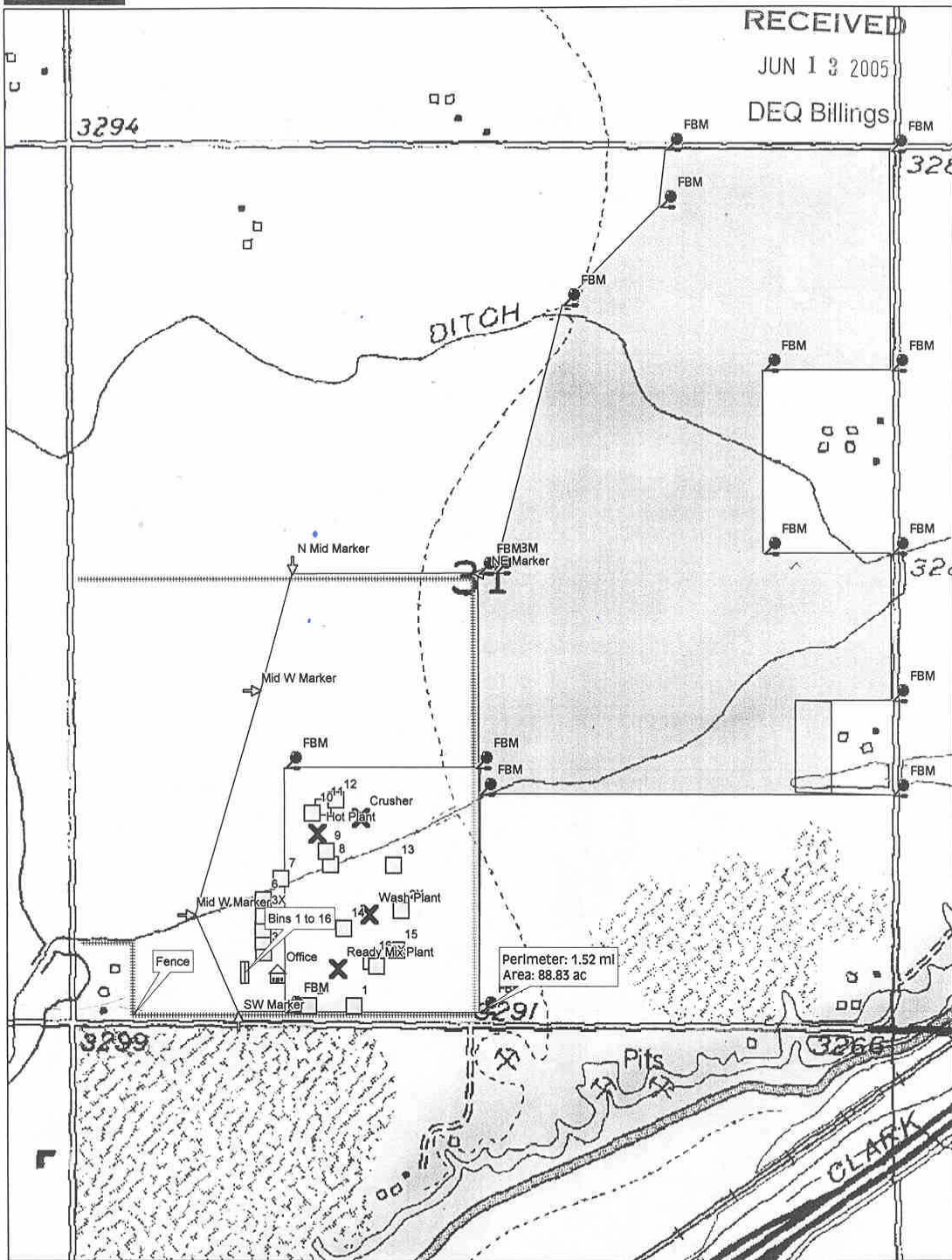
Fourteen adjacent residents, Montana Department of Transportation, Yellowstone Department of Public Works, Billings Gazette Legal Notice, Press Release, state web page.

**Contacts:**

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Patrick White, Senior Engineer, Morrison Maierle, Inc.  
Mike Newton, Materials Manager, Fisher Sand and Gravel

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